

REMARKS

In the above referenced case, claims 289-346 are pending. Applicant will sequentially address the issues raised by the Examiner.

I. Objections to the Drawings

The drawings were objected to under 37 CFR 1.83(a). Specifically, the Examiner objected to the drawings with respect to four different groups of claims: (A) claims 298-301, 312-315, 327-330, and 341-344; (B) claims 293, 299, 307, 313, 322, 328, 336, and 342; (C) claims 296, 310, 325, and 339; and (D) claims 297, 311, 326, and 340. Applicant will sequentially address each group of claims.

A. Claims 298-301, 312-315, 327-330, and 341-344

Figure 20C illustrates an exemplary projector capable of producing light having two constituent parts. The Specification describes Figure 20C as follows:

Each constituent part generates a collinear beam as in FIG. 8F. They are then combined together in polarizer analyzer 146 as explained for the diagram and with reference to FIG. 8F. Specification, page 90, paragraph 2 (emphasis added).

Each collinear beam generated by each constituent part is passed to the polarizer analyzer 146 which resolves the respective portions of each beam into P and S components with the S component being deflected to the left and the P component passing through. As a result, the P component from the first beam (e.g., of the first constituent part) and the S component from the second beam (e.g., of the second constituent part) are combined to be displayed on a projection screen. See Specification, page 84, paragraph 3.

Claims 298-301, 312-315, 327-330, and 341-344 have been amended to correct certain typographical errors and now conform with the exemplary

embodiment¹ shown in FIG. 20C where the merged beams exiting the analyzer 146 have substantially different selected predetermined orientation of a chosen component of electromagnetic wave field vector. Thus, Applicant respectfully submits that these claims have overcome the drawings objections.

B. Claims 293, 299, 307, 313, 322, 328, 336, and 342

Figures 8E and 8F both illustrate an exemplary projector having light sources 170, 172, 174 capable of producing light having a plurality of portions. "Such light sources can include a matrix of linear array diodes formed in a rectangular shape, a planar matrix of solid state lasers, LEDs light emitting diodes, etc." Specification, page 84, paragraph 3.

Figure 20C illustrates an exemplary projector capable of producing light having two constituent parts based on Figures 8E and 8F. The Specification describes Figure 20C as follows:

Each constituent part generates a collinear beam as in FIG. 8F. They are then combined together in polarizer analyzer 146 as explained for the diagram and with reference to FIG. 8F. This combination can be of the form where the beams are combined exactly one on the other with different polarizations or one beam can be shifted with respect to the other so that the plurality of portions are offset from one another, or the portions overlap one another. Also, as explained before, the timing of the beams can produce beams that are temporally in sync with one another or can alternate between the different fields of the desired information to be displayed. Specification, page 90, paragraph 2 (emphasis added).

¹ The embodiments disclosed in the Figures and the corresponding text are merely exemplary and should not be construed to limit the scope of the claims to only the exemplary embodiments as shown.

Figures 8E, 8F, 20C and their respective corresponding text in the Specification demonstrate exemplary implementations of how beams of electromagnetic energy can have a plurality of portions that are parallel and noncoincident (e.g., “one beam can be shifted with respect to the other so that the plurality of portions are offset from one another ...”)¹. Thus, Applicant respectfully requests the Examiner to withdraw the drawings objections of these claims.

C. Claims in Groups (C) & (D)

Claims in groups (C) and (D) have been canceled. Therefore, the objections with respect to these claims are now moot.

II. The 35 U.S.C. §112, First Paragraph, Rejections

Claims 296-297, 310-311, 325-326, and 339-340 were rejected under 35 U.S.C. §112, First Paragraph. These claims have been canceled; therefore, these rejections are now moot.

III. The 35 U.S.C. §103 Rejections over LEE in view of KONNO

Claims 289, 291-292, 294-297, 302-303, 305-306, 308-311, 316, 318, 320-321, 323-326, 331-332, 334-335, 337-340, and 345 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lee, U.S. Patent No. 5,121,983 (“LEE”) in view of Konno, U.S. Patent No. 4,497,015 (“KONNO”). Applicant respectfully traverses the rejections.

A. KONNO Is Non-Analogous Art

“In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” MPEP 2141.01 (a).

1. KONNO Is Not in the Same Field of Endeavor as the Present Application

Claims 289-346 recite methods and systems for producing a collinear beam of light for use in an image projection system. In contrast, KONNO discloses technology relating to photolithography in semiconductor manufacturing processes. KONNO, col. 1, lines 6-10. Technology relating to projection of images onto a screen viewable by humans is not in the same field of endeavor as technology relating to semiconductor manufacturing processes.

2. KONNO Is Not Reasonably Pertinent to the Particular Problem with which the Inventor Was Concerned

Claims 289-346 recite methods and systems producing a collinear beam of light for use in an image projection system. One of the problems being addressed by these claims relates to the efficiency of light transmission to light altering means (e.g., liquid crystal devices). In contrast, KONNO addresses the problem relating to fine circuit pattern resolution on a semiconductor substrate. KONNO, col. 1, lines 12-17. Thus, KONNO does not address problems reasonably pertinent to the particular problems dealt with by claims 289-346.

Based on the foregoing, KONNO is non-analogous art and should not have been cited in combination with LEE to reject claims 289-346.

B. There Is No Motivation to Combine LEE and KONNO

Even if KONNO is properly cited, there is no motivation to combine LEE and KONNO.

“The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggest the desirability of the combination.” MPEP 2143.01. “If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” Id.

LEE discloses a projection system for producing enlarged images for viewing on a projection screen. “Thereafter, the left and right video signals are projected on a

screen M by the two polarizing beams....” LEE, col. 4, lines 48-49. In contrast, KONNO discloses an optical system for producing a reduced image to be printed on a wafer.

FIG. 1A illustrates the arrangement of optical members of a reduced-projection exposure system for printing on a wafer a reduced image of a circuit pattern drawn on a photomask or reticle. KONNO, col. 2, lines 44-47 (emphasis added).

Based on the foregoing, there is no motivation to combine LEE and KONNO and claims 289-346 should be in condition for allowance.

C. KONNO Teaches Away from LEE

Further, KONNO and LEE teach away from their combination.

“It is improper to combine references where the references teach away from their combination.” MPEP 2145. LEE discloses a projection system for producing enlarged images for viewing on a projection screen. In contrast, KONNO discloses an optical system for producing reduced images to be printed on a wafer. These references teach away from each other and their combination is therefore improper.

D. Conclusion

Based on the foregoing, claims 289-346 are not unpatentable over LEE in view of KONNO and should be in condition for allowance.

VI. The 35 U.S.C. §103 Rejections over KUREMATSU in view of KONNO

Claims 289-290, 294-298, 300-304, 308-312, 314-316, 318-319, 323-327, 329-333, 337-341, and 343-345 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kurematsu et al., U.S. Patent No. 5,267,029 (“KUREMATSU”) in

view of Konno, U.S. Patent No. 4,497,015 (“KONNO”). Applicant respectfully traverses the rejections.


A. KONNO Should Not Be Combined with KUREMATSU

Like LEE, KUREMATSU discloses a projection system for producing enlarged images for viewing on a projection screen. “[S]ynthesized light ... are enlargedly projected onto the screen, not shown, through the projection lens 1.” KUREMATSU, col. 6, lines 6-9 (emphasis added). Based on the forgoing arguments with respect to LEE and KONNO, the Applicant respectfully submits that KONNO is non-analogous art and the combination of KONNO and KUREMATSU is improper. Therefore, claims 289-346 are not unpatentable over KUREMATSU in view of KONNO and should be in condition for allowance.

V. Conclusion

In view of the foregoing, it is respectfully submitted that the application is now in condition for allowance. Should the Examiner believe that a telephone interview would help advance the prosecution of this case, the Examiner is requested to contact the undersigned attorney.

Respectfully submitted,

By: 
Roxana H. Yang
Registration No. 46,788

Law Office of Roxana H. Yang
P.O. Box 400
Los Altos, CA 94023
(650) 948-0822